

## **CONNECTION SITE COATING METHOD AND SOLDER JOINTS**

### **ABSTRACT**

**[024]** Disclosed are methods and apparatus forming a solder joint (18) for electronic components and PCB assembly (10). Disclosed representative embodiments of the methods and resulting apparatus include a circuit board (PCB or component substrate) (12) having at least one connection site (14) for leaded or leadless components also having connection sites, to which a nickel diffusion barrier (20) and copper wetting layer (22) are applied to within selected thicknesses. Solder (16) is positioned on the prepared connection site (14) and a solder joint (18) is formed by reflowing the solder (16), promoting the formation of Cu<sub>6</sub>Sn<sub>5</sub> (18).